

FACILITY STATUS CHANGE FORM

Date Submitted: Jul 9, 2012 Originator: John Harrie Phone: 509.308.9935	Area: 300 Area Facility ID: 3746 & 3746A Action Memorandum: Action Memorandum #3	Control #: D4-300-055
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This form documents agreement among the parties listed below on the status of the facility D&D operations and the disposition of underlying soil in accordance with the applicable regulatory decision documents.

Section 1: Facility Status

- ☒ All D4 operations required by action memo complete.
- ☐ D4 operations required by action memo partially complete, remaining operations deferred.

Description of Completed Activities and Current Conditions:

Deactivation: Utility isolations were performed on the facility prior to beginning facility decontamination.

The following hazardous materials were removed prior to facility demolition: lead, asbestos, batteries, Freon, oil, light ballasts, HEPA filters and miscellaneous construction materials. Hazardous material removal and waste disposition was performed in accordance with *Removal Action Work for 300 Area Facilities*, DOE/RL-2004-77, Revision 2 (RAWP).

Demolition: Above-grade demolition of the facilities was completed in August of 2007. Below-grade demolition of the foundation slabs was completed in March of 2012, and backfilled in June of 2012. The building debris were removed and disposed of at ERDF. Asbestos abatement was performed under the supervision of Asbestos Certified Workers. The demolition was performed with Radiological and Industrial Hygiene controls.

Description of Deferral (as applicable):

None

Section 2: Underlying Soil Status

- ☐ No waste site(s) present. No additional actions anticipated.
- ☒ Documented waste site(s) present. Cleanup and closeout to be addressed under Record of Decision.
- ☐ Potential waste site discovered during D4 operations. Waste site identification number <to be> assigned.
- Cleanup and closeout to be addressed under Record of Decision.

Description of Current/As-Left Conditions:

The buildings and slab foundations were removed and disposed of at EDRF. A GPERS survey is included as Attachment 3.



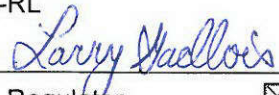
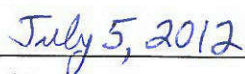
Identification of Documented Waste Site(s) or Nature of Potential Waste Site Discovery (as applicable):

300-15 (300 Area Process Sewer).

Section 3: List of Attachments

1. Facility information (building history, characterization and identification of documented waste sites).
2. Project photographs.
3. GPERS Survey

FACILITY STATUS CHANGE FORM

		
DOE-RL 		Date 
Lead Regulator	<input checked="" type="checkbox"/> EPA <input type="checkbox"/> Ecology	Date July 5, 2012

DISTRIBUTION:

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Ecology: Rick Bond, H0-57

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FR Engineering: Jason Olsson, L6-06

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Attachment 1: Facility Information

Building History:

The 3746 Irradiation Physics Building, constructed in 1945, was a 72.5' x 30.5', one-story, wooden building with a gable roof. 3746 had ten rooms comprised of a small electronics laboratory; a shop; a dark room; a storage room; two restrooms and four offices. The building was cooled with a swamp cooler and heated with steam. The original wood siding was covered with asbestos transite shingles and interior transite wall surface was replaced with gypsum drywall sometime in the 1970s or early 1980s. 3746 provided support space for personnel associated with health physics and research including testing composition of process substances and calibration of TLDs.

The 3746A Radiological Physics Laboratory, constructed in 1976, was a 97' x 52', one-story, concrete block structure built on a concrete slab at grade. The original building housed four offices, seven laboratories and support rooms, a water purification room and a mechanical room of various sizes including the cell biology laboratory; a tissue culture laboratory; the instrumentation development and microdosimetry room; an X-ray room, two radiation and biochemistry laboratories and a micro-spectrofluorimetry room. In 1981, four additional offices and two laboratories were built. The building was connected to the process sewer and the laboratory/hood exhausts flowed through the HEPA filter system on the roof. 3746A provided office and laboratory space for the PNNL Radiological Science Department, Washington State University and for 300 Area craft personnel.

Building Characterization:

Table 1 summarizes the industrial hygiene, radiological control, and asbestos samples collected in the 3746 and 3746A Buildings.

Table 1. Summary of Characterization Surveys at the 3746 and 3756A.

Type	Date	Documented In	Results Summary
Pre-Demolition			
Asbestos	April 24, 2007	CNN 133476	ACM was found in floor tile, mastic and pipe insulation in 3746 and 3746A. 3746 was sheathed with transite siding.
IH Surveys and Beryllium Characterization	Oct 27, 2011	CNN # 162504	Slabs were cleared for Be.
Radiological Surveys	August 22, 2005, November 14, 2005 January 7, 2006.	RSR-300PS-05-0742 RSR-300PS-05-1135 RSR 300PS-06-0253.	No radiological contamination was identified.

Associated WIDs sites:

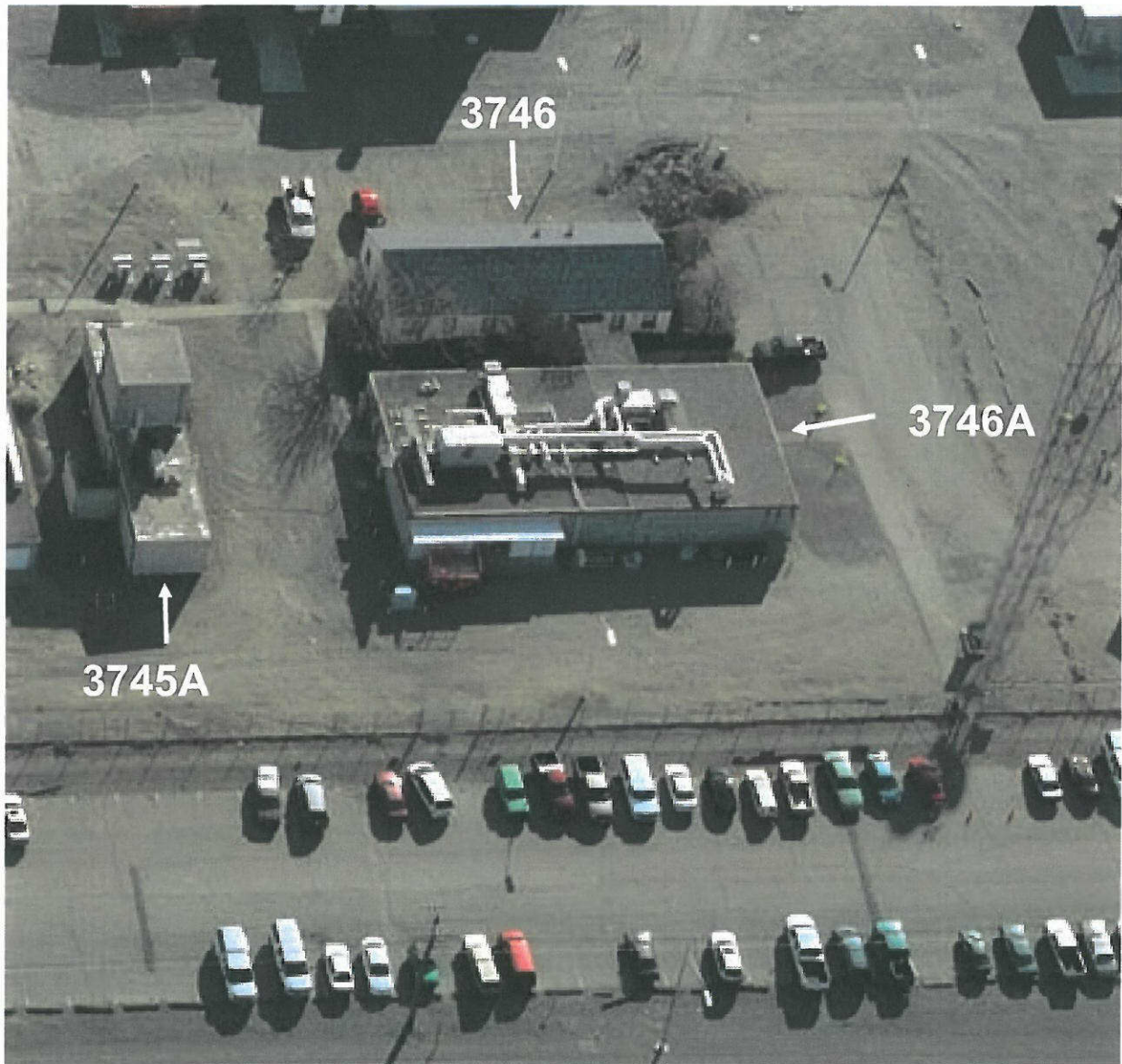
300-15 (300 Area Process Sewer).

Anomalies Discovered During Demolition.

No anomalies were discovered during the demolition of 3746 and 3746A. Soil beneath the slabs displayed no visual evidence of staining or discoloration.

Attachment 2: Project Photographs

Figure 1: 3746 and 3746A on March 21, 2006



North

Figure 2. 3746 Building on June 1, 1957

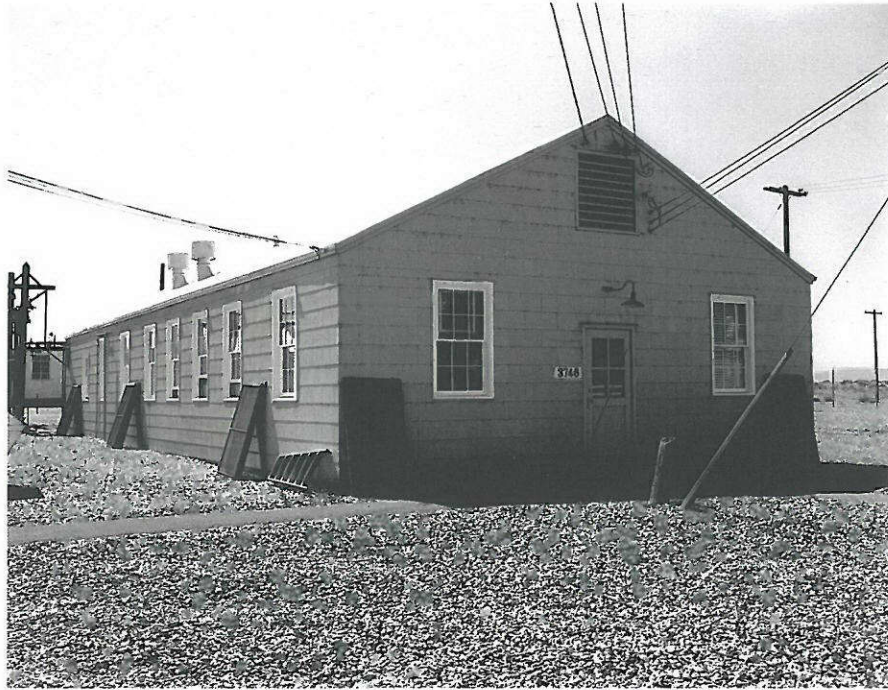


Figure 3. 3746A Building on July 9, 1978

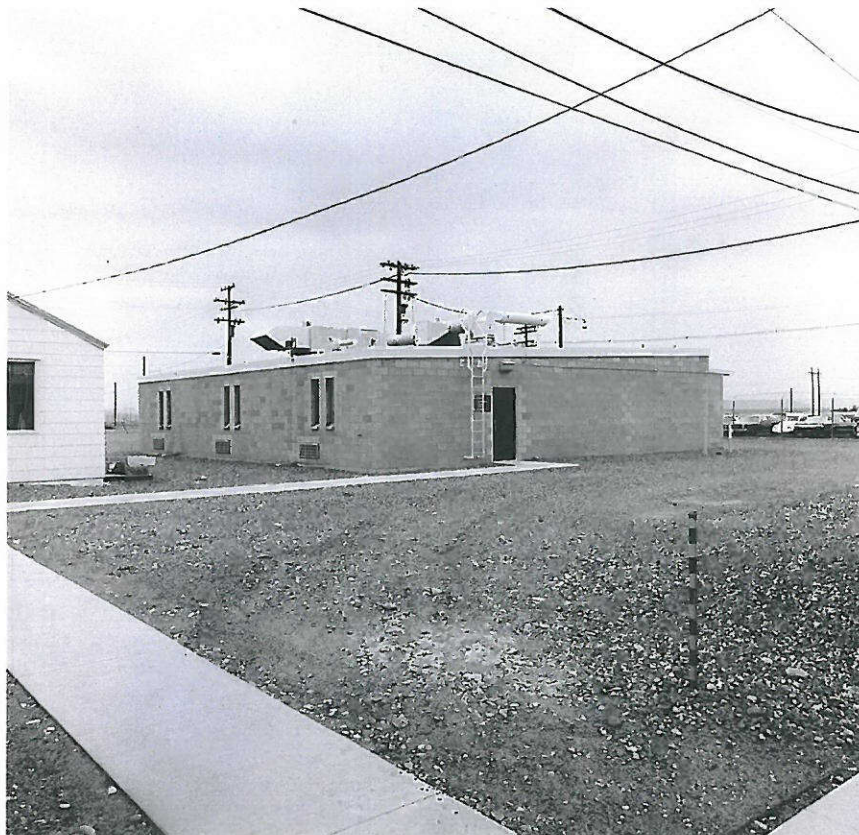
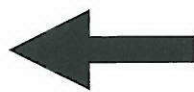


Figure 4. 3746 and 3746A after above-grade demolition on July 16, 2008



North

Figure 5. Looking north at 3746 and 3746A following below-grade demolition on March 27, 2012.



Figure 6. Looking south at 3746 and 3746A following backfill on June 13, 2012.

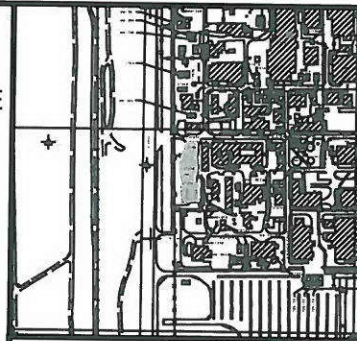


Attachment 3: GPERS Survey

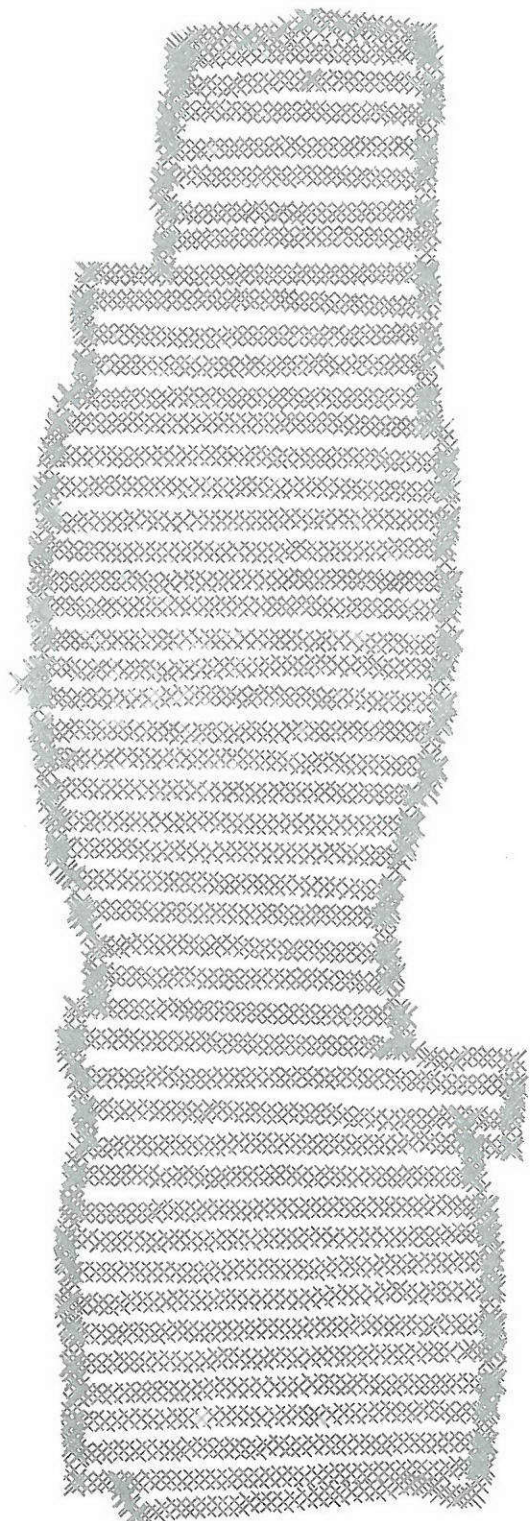
300 D4 - 3709, 3745A/B, 3746/A
GPERS Radiological Survey - Gamma Track Map



Bkg Location
465 meters NNE
1290 cpm



Site View



Net cpm

X	<1935
●	1935 - 5000
●	5000 - 10000
●	10000 - 25000
●	25000

Summary Statistics

Coverage File: D075
Number of Data Pnts: 2519
Type of Survey: gamma
Max GCPM: 2062
Avg Bkg CPM: 1290
Survey Date: 3/15/2012
Area Surveyed: 3646 m²
Project File: ESRFRM120040
Pdf File: ESRFRM120040C



Survey map Prepared by Bruce Coomer, ESI

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